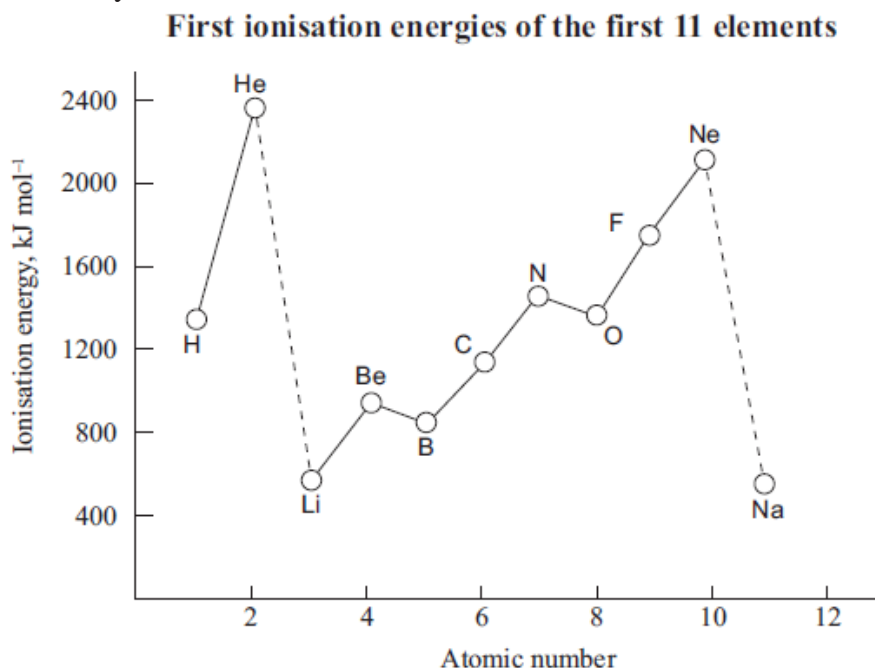


Ionisation Energy

1) A chlorine atom has a greater first ionisation energy than a sodium atom.

2) i) Write a balanced ion-electron equation to show the first ionisation of lithium.

ii) With reference to the graph below, discuss the general trends in ionisation energies from lithium to sodium, and account for any anomalies.



3) Account for the differences in the atomic properties given below

4) A bromine atom, Br, is smaller than a scandium atom, Sc, but its ionisation energy is larger.

5) i) Describe what is meant by “the first ionisation energy of chlorine”.

ii) Place magnesium, calcium and chlorine atoms in order of increasing first ionisation energies (IE). Justify your answer in terms of the factors that affect ionisation energy.